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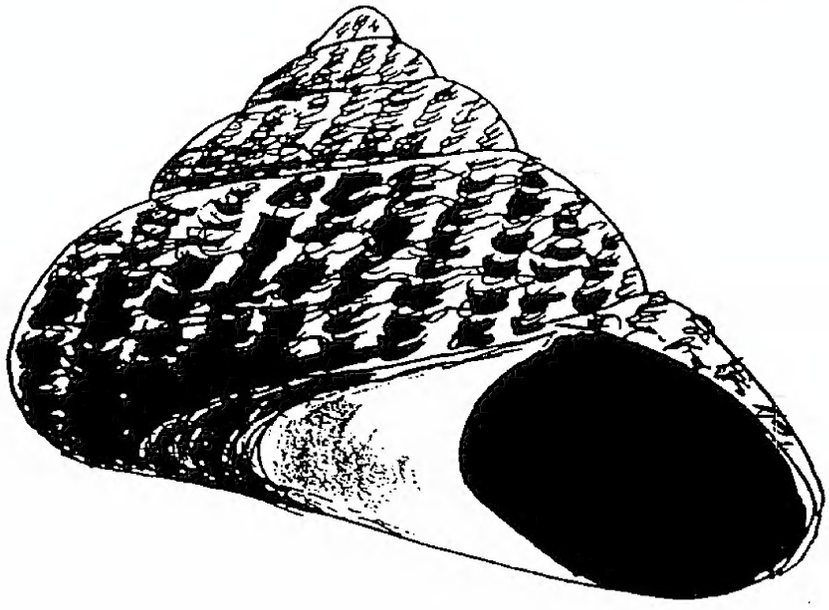

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A TALE OF TWO SHELL SHOWS

By Pat Lakeman

Heading to Australia for not one, but two shell shows – with a total of 7 exhibits - just means that there is an enormous amount of work to do before you leave. I remember how, when helping to organise the 1995 New Zealand Shell Show in Wellington, I had fervently hoped not only that lots of collectors from other clubs would come, but that they would also bring lots of exhibits. This drove me to being pretty ambitious about what I could contribute to the Keppel Bay and Townsville Shell Shows in July, and my original target of 8 displays only got reduced by one! Both shows, however, were well subscribed, well organised (they have been running annual shows for years!) and a lot of fun.

Keppel Bay...The Keppel Bay Shell Show at Yeppoon was first, and I met up with Jenny Raven and her mother at Brisbane airport on Friday morning. I was not yet relaxed about luggage that contained four display cases (one glass-fronted!), and far more shells than personal effects. Overall, it got through all my travels with little damage. And Australian colleagues were astonished that I had even attempted to bring large display cases. It was worth it, though, to know what I would be setting my displays up in, and to be confident about final presentation because I had worked nearly all of it out in advance.

From Rockhampton airport we hired a car to drive to Yeppoon (about 45mins) and we kept the car all the next week to go on to the Townsville Shell Show on the following weekend. Ena Cocum from the Keppel Bay Shell Club had arranged a great motel for us, on the waterfront but also not far from the Town Hall venue for the show. We set up our displays late that afternoon, and setting up my three (56 shells) took me about two hours – mostly spent unwrapping. It felt like a very long time! We met fellow kiwis Bob and Betty Grange and Hunt Seelye from Whangarei Shell Club (Bob and Betty were judges at Keppel Bay). We also met Ena, Daphne Ruthenberg and Marg Peach who had come to our 1995 show in Wellington, other Australian collectors and dealers we had met at the Sydney show in 1998, and of course lots of new faces!

The venue was large but thoroughly filled with exhibits and sales tables, so there was a lot to look at and enjoy. Jenny won a second prize with a Stewart Island Semicassis pyrum in the "single shell large for its species" category, and although I did not win prizes I was very pleased to see that two of my exhibits had scored 98 and 94 out of 100. The practice of giving exhibitors their scorecard for each entry was new to me but a very good one.

One of the particular features of the Keppel Bay Show was a stunning (and winning) entry in the educational category by Club Secretary Jean Offord. I came to realise that Jean and her family, and the Prowse family, had each prepared a large number of exhibits. Given their roles in running the Club and the Show, that was a tremendous effort, and they were duly rewarded at the prizegiving on Saturday night, held at a local restaurant. I was also delighted to receive an unexpected encouragement award – chosen by a longstanding club member and taking the form of a lovely volute from

her collection. A great multi-draw raffle followed the meal, and the mild Queensland "winter" weather made the stroll back to our motel very pleasant.

Yeppoon is a small but pretty town along the shore of Keppel Bay, looking out toward North Keppel and other islands. It has just enough shops, good cafes, good collecting beaches within easy reach and a lovely laid back style. A sign outside The Strand Hotel on Tuesday said "Lou and Kev gone fishing, bar open 3pm Wed" – now that's getting your priorities right!

On the Sunday we went back to the Show early to buy and trade and look at the exhibits, and then had a look around local beaches, delighted to find all sorts of shells that locally are probably not exciting, but of course are so different from New Zealand shells. We took our displays down at the end of the afternoon, and then joined lots of other shell people for dinner and much discussion at the Sailing Club.

On Monday the Club had arranged a field trip to Conical Island - about an hour offshore in a slow boat, but the trip itself was a feature, and the weather was perfect. When we got to Conical Island we all agreed that heaven should be like that, i.e. worth being good, to be sure of getting there. I found shell collecting somewhat overtaken by the sheer beauty of where I was, and am at risk of being quoted as saying simply "bloody fine day" when asked for my opinion of it all, on the way home. One of the particular reasons for going to Conical Island was to look for rare dark and/or contorted versions of an otherwise quite common cowry (*Cypraea eroneus*), and several collectors were rewarded with those including Jenny. Among other good finds was a textile cone – which has a deadly sting - reminding us our hobby is not always a gentle sport. Less deadly but nevertheless painful were cuts inflicted by very sharp oyster shells on most of the rocks on the island – and we greatly appreciated the rock-turning gloves we were able to borrow for the day.

Jenny's mother had left to join family in Melbourne, but Jenny and I had one more day in Yeppoon before heading north on Wednesday. We spent it shell collecting of course, along beaches to the south of Yeppoon, and, yes, you guessed it we didn't give up until the light failed.

With two and a half days available to drive to Townsville, we had the option of stopping at various places on the way. So we travelled via overnight stays at Mirana (thanks to Daphne and Doug Ruthenberg) and Dingo Beach, acquiring shells on the way of course, and exploring new territory for us, which is always fun. Dingo Beach is a particularly beautiful spot, and good collecting obviously because other collectors were already there including our kiwi colleagues!

We arrived at Dingo late afternoon and with a low tide imminent we went straight out onto the beach. It didn't help the other collectors to have got there first – the seriously impressive find was waiting for Jenny. She returned to the motel well after dark with an armful (literally) of baler shell – despite a lot of other good finds (especially strombs) no one could beat that!

... and Townsville. Well, what can you say about a Shell Show where you put in four exhibits and win three first prizes? It is hard not to be delighted about that, and I still am. But there were lots of other good things about the Townsville Shell Show too.

The bowling club venue for the Townsville Show was a very good arrangement: a nice roomy hall for exhibits and sales tables, good parking, easy access, more or less continuous food from an adjacent kitchen area and a bar readily reached through a convenient sliding door in one wall! All the space was needed, since there were many exhibits and sales tables – lots to enjoy, in other words!

One of the aspects that encouraged lots of entries was the way the exhibit classes were specified. As well as the traditional classes of shells from one family, there were mixed family classes. But there were also innovative classes where the focus is on colour (lilac pectens, black and white shells) or where you could really use your imagination (shells on a lilac background, shells displayed aperture up). This was combined with mostly needing only 10 or 15 shells per exhibit, and less emphasis on varied localities in the judging criteria. The result is that even from a relatively limited shell collection, it is possible to be competitive and contribute good exhibits. A lot to learn from this for future shell shows in Wellington!

The hospitality and show-related activities were other great features. Unlike the Keppel Bay Show at Yeppoon, where several cafes et cetera were just around the corner, the Townsville Show was in the suburbs, with no shops in easy walking distance. Instead the bowling club kitchen seemed to spend the whole weekend offering us good food at modest prices, which had the added beneficial effect of keeping us together, socialising and getting to know one another. At the prizegiving on Saturday night I am sure there was a trophy and/or prize for every class, which is very encouraging. And the scale of the multi-draw raffles was the grandest I have ever experienced - and I wasn't the only one to win an armful of prizes! As a Kiwi needing to return home, I am truly grateful not to have won a box of bananas or a large pot plant, but the greatest irony had to be winning *Lepsiella scobina* collected from Lyall Bay in Wellington (less than 10km from home), which I have duly brought back to their homeland. The range of raffle prizes was terrific, no doubt indicative of great generosity by some club members and supporters.

It really was a great weekend packed with activities, and at one stage I was worried about not having enough time to look thoroughly at all the exhibits! Even so we managed to fit in a trip to Rowe's Bay, where Bob Ellis was kind enough to show us that shells (*Littorina*) sometimes do grow on trees (mangroves); a visit to the Sunday market in the central shopping mall; and a quick look at some local tourist attractions before we flew out of Townsville airport early on Monday afternoon. Shell collectors everywhere seem to be remarkably friendly and generous people, and Keppel Bay and Townsville folk are no exception. Having joined the Townsville and Keppel Bay clubs I now feel like a local, and cherish all the new friendships made. I'll be back as often as I can get there – especially when I can enjoy two Australian shell shows on successive weekends, which really makes the trip attractive in terms of cost and time, when you are starting from New Zealand.

SHELL COLLECTING - WAITARERE BEACH

By Jim Harding
with shell list by Ian Townsend

On Friday morning, 27 August 1999, Ian made mention of having a look along Waitarere Beach for shells; I thought just a perfect day for shell collecting. Around 9.30 a.m. we set off from Ian's place in Levin armed with plastic bags and film containers, and in the van in case we found a huge wash-up. Arriving at the beach in bright sunshine and not a breath of wind, we crossed over the little stream on our right side and headed along the beach. At first there did not appear to be very much in the way of interesting shells. I walked along the high tide wash and all I found was *Mactra discors* and *Dosinia anus* from the last tide.

We decided to give it a fair go and walked along the lower tide waash. It was not long before we came across large patches of fresh *Mactra discors* and *Dosinia anus* and also the odd *Bassina yatei* plus a few *Semicassis pyrum* and *Alcithoe arabica*. After a short distance we came to very large areas of river debris of at least 15 cm in thickness. Most of it was not exposed fully until we returned and the tide was lower. Further along the beach there were several large patches of *Mactra* and *Dosinia* with some *Bassina yatei*. Amongst them, *Struthiolaria papulosa* was present and quite a number of *Semicassis pyrum* scattered throughout, most of which were still live. We walked until we ran out of shell wash which could have been from one to one and a half kilometres along the beach.

The return walk was better as the receding tide had exposed most of the river debris. This is where most of the specimens were found. Nearly all the *Austrofusus chathamensis* we found there were still containing animals. A fossil specimen of *Crepidula radiata* was also found amonst this debris although very hard to spot being of a similar colour. This specimen had a small hole in one end but it was still a good find. Another interesting observation was that most of the *Austrofusus chathamensis* were found to be burrowing their way back down through the debris to the sand. We also found the *swainsoni* form of *Alcithoe arabica*.

Most of the fresh wash-up was found to consist of live molluscs. Coming back along the beach we noticed a very slick way of collecting shells.

The idea is to buy a Mark 4 Cortina, drive it on to the beach, and then drive along and stop on top of a shell patch, get out with your plastic bags and proceed to fill them. You then head off to the next patch of shells and so on until you have filled all your bags or the car is full, whichever comes first. You then head home with the booty, and then the big job of sorting begins ...

Shell list - compiled by Ian Townsend

GASTROPODA

Zethalia zelandica (Hombron & Jacquinot, 1855)
Astraea heliotropium (Martyn, 1784) - in sponge
Maoricolpus roseus roseus (Quoy & Gaimard, 1834)
Struthiolaria (*Struthiolaria*) *papulosa* (Martyn, 1784)
Struthiolaria (*Pelicaria*) *vermis vermis* (Martyn, 1784)
Crepidula radiata (Hutton, 1873) - fossil
Zegalerus tenuis (Gray, 1867) - fossil
Tanea zelandica (Quoy & Gaimard, 1832)
Semicassis pyrum (Lamarck, 1822)
Haustrum haustorium (Gmelin, 1791)
Austrofusus chathamensis Finlay, 1928
Cominella adspersa (Bruguiere, 1789)
Penion sulcatus (Lamarck, 1816)
Glaphyrina caudata (Quoy & Gaimard, 1833) - fossil
Alcithoe arabica (Gmelin,. 1791) - Recent and fossil, also *swainsoni* form
Amalda (*Baryspira*) *australis* (Sowerby, 1830)
Amalda (*Baryspira*) *mucronata* (Sowerby, 1830)
Amphibola crenata (Gmelin, 1791)

BIVALVIA

Perna canaliculus (Gmelin, 1791)
Atrina pectinata zelandica (Gray, 1835)
Crassostrea gigas (Thunberg, 1793)
Pecten novaezealandiae Reeve, 1853
Cyclomactra tristis (Reeve, 1854)
Mactra discors Gray, 1837
Spisula (*Crassula*) *aequilateralis* (Deshayes, 1954)
Resania lanceolata Gray, 1853
Paphies subtriangulata (Wood, 1828)
Peronaea gaimardi (Iredale, 1915)
Soletellina nitida (Gray, 1843)
Austrovenus stutchburyi (Gray, 1828)
Bassina yatei (Gray, 1835)
Dosinia (*Austrodosinia*) *anus* (Philippi, 1848)
Dosinia (*Phacosoma*) *subrosea* (Gray, 1835)

CEPHALOPODA

Spirula spirula (Linnaeus, 1758)

TE AWAITE TRIP - 16 to 19 January 1999

By Pat Lakeman

Te Awaite is on the Wairarapa coast, about an hour from Martinborough on a mostly unsealed road. Thanks to our President, Don Watson, who has a beach house there (Don calls it a bach but he doesn't do it justice), club members had the opportunity to spend a weekend there in January. Don arrived first on Friday 16th, followed by Judy Harding and Digby Standish mid-afternoon, with Jenny Raven, Graham Aamodt and Pat Lakeman arriving soon after. Doug Hicks, a friend from Orewa, joined us about 8p.m. Don's place is separated from the sea by just a short section of grass – it sure has location! The hills come down close behind the coast, and access along the road runs out just to the north (due to Te Awaite Station gate) and maybe 10km to the south past the settlement of Tora. Weekend migrations mostly of campers swell the numbers of people here a bit, but it feels (and is) remote, and when the seven of us had arrived it felt like we'd doubled the local population.

Despite weeks, if not months, of hot fine conditions immediately prior, the weather was wet and windy, but it didn't dampen our spirits. Fortified by a fine steak meal prepared by Digby and Judy (and some liquid refreshments of course), Jenny, Digby, Judy and Pat set off for a walk along the coast to the north. The river mouth was bridged by a large sand bar, and rounding a point just beyond the Te Awaite Station opens up a long stretch of coast that is rocky but with sand at first, then increasingly rocky, seemingly forever. Not far around the point seemed to be the best shell collecting – quite a lot of *Haliotis iris* and *H. australis* washed up but nearly all damaged. Two small *Janthina exigua*, a *Janthina globosa*, and a slit limpet were amongst our finds.

Surprising how wet you can get in the rain and we didn't know it then but it set the tone for most of the weekend! I had brought waterproof dive boots but went out in cross trainers, so of course they took three days to dry, I must have left my brains in Wellington. Stimulated by the outing, some of the stalwarts played cards into the night (Graham won, he had skipped the walk and reserved his strength), but I crashed into bed as if I had worked hard all day.

Up at 7a.m. next morning but Don, Doug and Digby had me well beaten – all dressed and Don in the kitchen producing eggs, bacon, tomatoes, toast, coffee and tea for everyone. This was fast becoming a very eating weekend! Working it off was the only option so by 8.30a.m. we were all, bar Don, off walking to the south. Don stayed back to snorkel out in front of the house, looking for paua and setting craypots. Low tide was about 11a.m., and I was impressed by the clean unencrusted condition of most shells, particularly both dark and white rock shells, with the first being the more plentiful.By early afternoon we were all back for lunch(!), swapping notes and Judy assiduously naming her finds. Digby, Jenny and Doug had covered ground to the north again as well. We had all seen a large piece of fresh bull kelp washed up high but smothered in clean *Diloma nigerrima*, and alongside a piece of thick old rope covered in *Marinula filholi*. I found two live *Buccinulum*, probably *B. vittatum*, which Don says are hard to find and even harder to name correctly (bordering on *colensoi* at

least). Other finds were *Cominella maculosa* with beautiful points, *Nerita atramentosa*, various limpets and *Cantharidus opalus opalus*.

After lunch we were off again, all driving south, then Jenny and Graham fishing at Tora, the rest of us shelling at Sandy Bay. Don found *Cantharidus purpureus* for the first time at Te Awaite, which marked a new entry in the list of shells from the area which he has been compiling for some years. After a while we went to join the fisherfolk, and drove further south (collecting *Argobuccinum pustulosum tumidum* at a stop on the way) to see the wreck of the "Opua". A large seal was nearby, then departed being disturbed by a lone surfer, and for the first time I started to notice how often Jenny was pulling her video camera out of its bag. I would be noticing this again! But we did have some sunshine this afternoon ... real nice.

At 4p.m. Judy and Digby had to return to Wellington, Digby for his daughter Nadine's birthday and Judy for "work tomorrow". Both carried off some paua courtesy of Don, and you could see they would have liked to stay longer.

Back at the beach house, watching cricket was not attractive (India were 97 for 1 wicket, chasing 208 in the 21st over), so I took to a mystery novel for a while. Jenny and Graham swam and snorkelled out front (Doug had the video!) but not for long due to high tide and swell. Don went paua bashing.

The result of Don's work was a great meal of pan-fried paua (so tender and delicious) and then everyone but me headed off for another walk to the north, around the point where we could see that seals had come ashore. I lazed with my book – a wonderful quiet night, but the weather closing in and the horizon becoming obscured – as it would mostly stay from that night on. On the walkers' return of course we all ate some more – chocolate mudcake from Doug, and coffee, outside on the deck.

Sunday at 7.30a.m. and Don and Doug are out already, despite the weather which is like the first day, grey overcast down low obscuring the hills, light rain and southerly winds. Jenny gets up about nine, the walkers return, you guessed it we tuck into bacon, tomatoes toast etc and even manage to leave some for the late-rising Graham. Don goes to empty craypots, I take off for a solid walk (of necessity!) to the north, and I enjoy the isolation for almost 3 hours. Even find a few shells: a *Janthina globosa* with animal and float bladder still intact, which I have never seen before. Also a broken *Haliotis virginea* (pretty rare here according to Don), a nice big fresh *Benhamina* limpet washed up – but the perfect *Haliotis australis* continues to elude me (there are many "almosts"). As I return, Jenny is snorkelling, Don is still out there. Graham prepares our lunchtime cook up of sausages, but Don has bagged a marble fish (for bait) from his net, and crayfish from his pots.

After lunch Jenny and Graham do a bit more fishing but soon return due to jelly-like stuff in the water that fouls their lines. Don cooked crays and then went on his neighbour's boat to set fishing nets and craypots. On Don's return we ate crays for dinner, creating a mountain of cray shell debris, but believe me it was all debris. We are like Jack Sprat and his wife in the old nursery rhyme: Don likes cray bodies, Doug and Pat are meticulous with the legs, etc. Bubbly, riesling and a few beers accompanied this fine repast and we are all quietened down a bit! (or maybe it is the

heavy rain this afternoon). And we have fresh butterfish and moki for tomorrow, from Don's neighbour's nets. Jenny does a spot more fishing at the river mouth, without luck. Her plan to take a spotlight down to the rockpools (and perhaps see a crayfish as Doug did last night) are foiled by the wind creating a rough surface, and the rain.

Doug is writing learnedly in the visitor's book. We had watched the news earlier for the weather – it is still a bad forecast for tomorrow but who cares? With relatively few shells to find I have taken to picking up pebbles including some "rock cowries" so named for their shape. Doug tells me they are spillite and andacite – one of the latter having "unusually large crystals of feldspar – since it is not crystalline enough to be diorite". I feel intelligent all of a sudden! Don tells us he had his best shell collecting ever last night – unfortunately in a dream! We are all collecting on sand dunes in Australia, lots of shells around for everyone to get a big bag full, but on the way out we had to pay for them! With only a $50 note on him, Don used his EFT-POS card, and the stress of that woke him up. Ah well, who among shell collectors hasn't dreamed of molluscan riches all around!

7a.m. Monday and Doug is off, back to work. We all get up to see him off and Don cooks him a fish breakfast, but the rest of us go back to bed again – even Don curled up in an armchair under a sleeping bag. You guessed it, fairly strong southerlies, colder and rain! Don saw the river mouth bar break open at about 8a.m., apparently for the first time since November: the result is a huge patch of dirty water out into the bay. Jenny resorts to more videoing and Don notes that it makes her walk like she is drunk: if you don't know what she is doing, of course! Don retrieves himself by cooking fresh fish for us all. And of course we go for a walk despite the weather and nearly all our clothes being wet.We went along to where the bar had been and watched the river pouring through, moving sizeable tree trunks and still eating away the bank. (That really was worth videoing.) Then Jenny, Graham and I walked south along the road and shell hunted on the way back (better with the wind at your back!). Don lifted craypots and got a good haul, so cooking crays and eating them rapidly took over our attentions. Jenny videos the sea just one more time and then she, Graham and I give the beach house a really good clean for its next lot of visitors the following weekend.We depart reluctantly, and on our way see that the other river to the south has also broken through its bar. The many trickles of water through gravel that the road took us over on our way here on Friday are now free running rivers and streams. Weather being what it is, there is much sun as I go back to work in Wellington the next day. And I resolve to experience Te Awaite again one day (Don willing) in sunshine. We all enjoyed our weekend very much – many thanks to Don and to my companions for being such good company.

A VISIT TO LOTTIN POINT: EAST CAPE

By Jenny Raven

In June this year I had the opportunity to make a first ever visit to Lottin Point on the northern tip of the East Cape. This isolated area is a long way from the main centres and is not frequently visited or written up in shell literature. However what was written did excite me. Articles by Derek Crosby and the late Dave Gibbs and in old issues of "Poirieria" wrote of finding interesting deep-water shells. There is now a motel at Lottin Point positioned above the cliffs, which makes life easier. The road from the motel leads down to a stony beach surrounded on each side by more stony beaches and rocky headlands. Low tide collecting here and a walk along the beaches proved isappointing, The beaches here reminded me of the gravel beaches around Taupeka Point at Russell. After much looking I found a washed up *Trivia merces* and nothing else of great interest.

The motel owner advised that one could also drive some kilometres along in the opposite direction also. I assumed we would be looking down from high cliffs and that would be it. However, the topography was much kinder as the unsealed road ran gently along a grassy slope and round tree lined bays. From here it was only minutes down to the rocks and sea. In most cases the high tide came up almost to the bank. In one bay I found a very fresh *Mitra carbonaria*. This was more promising. Further along the road we stopped in an open area close to the rocks. Wide rock platforms exposed at the low tide contained large pools of water and in one open portion there was just enough gravel and sand to reveal a small amount of shellsand. This reminded me very much of Taupiri Bay out of Russell. The rock formations were very similar and, interestingly enough, the shell sand was also similar. I found *Pictobalcis articulata, Philippia lutea, Volutomitra obscura, Clanculus peccatus, Buccinulum robustum, Rissoina zonata, Taron mouatae*, and *Cardita brookesi.*

All these shells are generally found in the Far North of New Zealand some hundreds of kilometres away. However, like the Far North the water here receives the same warm water currents. It is also very deep just offshore. Lottin Point is renown amongst the rock fishermen who come here for the very large kingfish and other fish delicacies. There were some major differences with the Far North however. *Cellana denticulata*, the Cook Strait limpet was common, living on the low tide rocks. This was curious as they are not recorded on lists made further south at Mahia. Mahia has shown to be the southern most location of many Far North shells. I noted *Crepidula costata* and *Buccinulum vittatum* with wide banded stripes here, both of which are doubtful records from Mahia. I also noted a very colourful *Charonia lampas rubicunda* living among the low tide rocks at nearby Waihau Bay and some *Ranella a. australasia* around the rock pools on the Lottin Point rock platforms. The shellsand, when viewed under a microscope at home, showed numerous microscopic shells were present.

Overall, one can conclude that this is a very exciting place for shell collectors ands one gets the impression there is much more of interest to be found here yet. The area of hell sand was not great and it may be there to a greater or lesser degree when you visit but it certainly is worth a stop if you are tripping around the East Cape.

WELLINGTON HARBOUR: COMMENT ON ZONE TWO " THE NARROWS"

By Jenny Raven

The list of marine mollusca from Wellington Harbour by Bruce Marshall divides the harbour into three zones. This list was published in *Cookia* Vol. 9 (1998) along with an article on the molluscs in zone three. This article follows with comment on zone two "the narrows".

Zone two covers the area from Palmer Head to Point Halswell on the Miramar Peninsula side of the harbour and from Pencarrow Head to Point Arthur south of Eastbourne, on the eastern side. The area is characterised by large swells and wave action about Barrett's Reef as the harbour entrance narrows and then a general calming down of all wave action about Point Dorset and Seatoun as you enter the harbour proper.

The Wellington Shell Club has held a number of field trips within this zone. Most of the shells found here can also be found in zones one and three. Over 180 different shell species have been found in this zone with 12 noted as being found only in this zone. Quite a lot of material was obtained off the *Wahine* which sunk within this zone; pieces of which were later brought ashore and laid on the wharves for club members to pick over. Good specimens of *Pododesmus zelandicus* and *Argobuccinum pustulosum tumidum* were obtained in this way. The live *specimens* of *Moerella huttoni* and *Thracia vegrandis* recorded from this zone were most likely also found in this fashion.

There are some shells, which occur more commonly within this zone, most notably about the southern ends of Seatoun and Eastbourne beaches. These include *Gari stangeri, Ruditapes largillierti, Trochus tiaratus*, large *Perna canaliculus* and *Mytilis edulis galloprovincialis.* Live *Buccinulum linea* and *Penion sulcatus* (not generally seen at all in zone three) are occasionally found in low tide rock crevices at Seatoun and Eastbourne respectively. Paua are less common as are the rock shells, particularly *Dicathais,* so common in zone three. As you approach zone one and the harbour proper *Buccinulum vittatum* become very common under low tide stones.

Wash-ups are less frequent in this zone. In areas of rough wave action about Barrett's Reef the fauna is little different from zone three. From Palmer Head to Breaker Bay *Argobuccinum pusulosum tumidum* is occasionally washed up. The Point Arthur area is the only area where *Lepsithais lacunosus* has been listed as living at low water. Possibly it lives amongst the blue mussels as it does at Marfells Beach across Cook Strait. The area from Seatoun beach to Breaker Bay experiences washups and is also a pleasant area for walking. Breaker Bay is full of gravel and yields nothing but the rocky area in between is sometimes rich in shell sand and has much live fauna. On the Eastbourne side from the end of the road back to the groynes at the south end of Eastbourne beach is best. This is one area where sponge is frequently cast ashore containing double *Chlamys zelandiae*. The best double yellow one I have ever found was in sponge here. This was also the area that much shell life was cast up after last years algal blooms in the harbour. Large *Oxyperas elongata, Scutus antipodes,* and *Myadora striata* were commonly cast ashore.

Overall this zone is very picturesque and accessible for collecting. Not quite the same number of treasures to be found in this zone as in zone three but you will certainly enjoy the walks and notice a difference in the composition of the shell fauna.

COLLECTING SHELLS ON THE WAIRARAPA COAST: FROM THE NORTH SIDE OF TE AWAITE BAY TO SANDY BAY, 1985 – 1999

By Don Watson

I collected the first shell in 1985 but most of my collecting was done between 1990 and 1999. The coast is a very hard area – a lot of wave action from the southerly quarter, plus it can blow just as hard from the westerly quarter. The westerly picks up speed down the gulleys toward the sea; it picks up the sea and swirls it into twisting squalls that travel out to sea.

You can go collecting on windy days but you have a bit of trouble, your eyes water or the sand blows into your face, but if you're a hardy type you can enjoy yourself. Days without much wind are a treat.

The area is a breeding ground for crayfish so there are a lot of small fish around: they like feeding on limpets and other shells, plus crabs. I caught crayfish this year (1999) feeding on a *Haliotis australis* which was half eaten – when I put him in the bag, he didn't let it go then either. *H. australis* would be very easy for a crayfish to take off the rocks.

Shell sand is not in great quantities: the sea has to settle down to a smaller wave action, then it accumulates into crevices. I collected *Epitonium* in sand under stones, live. I also collected a beach washed up *Philippia lutea*, but really need to find more to make it a record.

Chitons -

I have not really made a proper collect of chitons, only collected what I've seen under stones and washed up on kelp holdfasts. I've listed 7 species.

One of the fishermen brought up a net tangled with sharks and there was a lot of shell grit and oysters in it, from about 160 metres deep, so I have included these shells into the list.

There are patches of Karaka trees at the base of some of the gullies, where the Maoris must have camped. Also there are Maori middens, patches of small shells which they must have lived on, also a lot of flax on the steep faces.

Bird life -

There are not many birds in the coastal area; there's not much bush or trees on the coastal slopes. The neighbours don't have cats because the bird life is not very good. Plus the wind is probably a problem.

Birds seen from Te Awaite Bay to Tora River, Wairarapa coast, 1990 to 1999 -

Northern Giant Petrel; Gannet; Black Shag; Pied Shag; White-faced Heron; Reef Heron; Black Swan; Paradise Duck; Mallard; Grey Duck; Harrier Hawk; Pukeko;

Black Oystercatcher; Pied Stilt; Black-fronted Dotterel; Spur-winged Plover; Black-backed Gull; Red-billed Gull; Black-fronted Tern; Caspian Tern; Kingfisher; Skylark; Welcome Swallow; Hedge Sparrow; Blackbird; Song Thrush; Magpie; Grey Warbler; North Island Fantail; Silvereye; Bellbird; Yellowhammer; Chaffinch; Greenfinch; Goldfinch; House Sparrow; Starling.

The terns usually settle on the rocks on the northern point and work out off Te Awaite Bay following shoals of kahawai. In the last two years there has been a colony of 40 seals living on Spargoes Point at the northern point of Te Awaite Bay. It is private property over the bridge past Te Awaite Bay, with no road access, but that is good because it keeps that part of the coast like a reserve. But there are poachers walking up the coast packing out paua. If they can catch and stop this, the place will last for years. I like the area because you relax and watches are not needed – stay there for two or three days and you think you have had a week's break.

Seaweeds -

It was a lousy day from the south on the 18th December 1995; we were stuck inside, so we went down in front of the batch and took a sample of seaweed to identify. The hole we took it from is about 1.5 metres deep at low tide, about 30 feet long and 20 feet wide – a very interesting place, situated on the south side of Te Awaite Bay in front of Don and Tony's bach on the Wairarapa coast.

The book used to identify the seaweed was *Seaweeds of New Zealand* by Nancy M.Adams (1994). Nancy's book was a real big help. We collected 24 different kinds. I made an attenpt to draw the different species but my drawings would make Nancy laugh!There would be a lot more if you included seaweeds down to diving depths. This list is only done by an amateur (the plate references are to plates in Nancy's book). It was a very enjoyable way to pass a very wet cold day.

Anotrichium crinitum (plate 94) (growing on sides of rock)
Ballia callitricha (plate 92)
Callophyllis atrosanguinea (plate 75) (low lying plant)
Carpophyllum angustifolium (plate 41)
Carpophyllum plumosum (plate 42)
Caulerpa geminata (plate 11) (long; green)
Colpomenia sinuosa (plate 18) (light brown bladder).
Cystophora distenda (plate 45) (tall variety; grows like cactus fronds, but small)
Cystophora scalaris (plate 45) (dwarf bushy variety in pool; 60mm high)
Delisea compressa (plate 88)
Delisea elegans? (plate 88) (very fine, fern-like; small, 80mm)
Glossophora kunthii (plate 26)
Haliptilon roseum (plate 54) (pink colour; short; grows on sides of rock and stones at low tide)
Halopteris virgata (plate 21)
Hormosira banksii (plate 37) (at low tide, very shallow)
Landsburgia quercifolia (plate 46) (4 branches from holdfast; 400mm high)
Lessonia variegata (plate 31)
Marginariella urvilliana (plate 38)

Pterocladia lucida (plate 52) (agar)
Ptilonia willana (plate 89)
Rhizoclonium implexum (plate 5) (long green stem with balls)
Sargassum sinclairii (plate 39) (only a young plant; has central rib)
Scytothamnus australis (plate 17)
Stypopodium australasicum (plate 26) (short plant about 75mm)

LIST OF MOLLUSCA COLLECTED ON THE WAIRARAPA COAST : BETWEEN SANDY BAY AND TE AWAITE BAY, 1985-1999

POLYPLACOPHORA/CHITONS

Ischnochiton maorianus	Live	Under stones; low tide
Lepidozona beui		Brought up in tangled net 160m by fisherman
Plaxiphora caelatus	Washed up on rock	
Plaxiphora egregia	Live	Under kelp holdfast
Rhyssoplax aerea	Live	Under stones; low tide
Sypharochiton pelliserpentis	? Live	Beach collected Te Awaite; on rocks
Acanthochitona zelandica	Live	Under stones; low tide

GASTROPODA

Cellana denticulata	Live	On rocks; medium level
Cellana ornata	Live	
Cellana radians	Live	
Cellana stellifera	Live	Beach collected also
Asteracmea suteri		Out of shell sands
Atalacmea fragilis	Live	Under smooth stones
Notoacmea elongata	Out of shell sand; low tide	
Notoacmea pileopsis	Live	High tide level
Patelloida corticata	Live	On rock faces and top of rocks
Radiacmea inconspicua	Live On backs of paua	
Maoricrater explorator	Brought up in tangled net 160m by fisherman August 1994	
Incisura rosea	Among sand with seaweed	
Haliotis iris	Live	Low tide
Haliotis australis	Live	Low tide
Haliotis virginea virginea	Live	Pretty scarce; outer low tide under stone
Emarginula striatula		Under stones; low tide
Emarginula sp.	Brought up in tangled net 160m by fisherman August 1994	
Scutus antipodes	Live	Under stones and rocks
Tugali suteri suteri	Under stones; low tide	
Cantharidella tesselata	Live	Living on brown seaweed
Cantharidus opalus opalus	Live	Snorkelled 2 metres low tide; on seaweed
Cantharidus purpureus		Sandy Bay wash up; 17/1/99
Diloma (Fractarmilla) bicanaliculata	Live	Under stones; low tide
Diloma (Fractarmilla) zelandica	Live	Medium tide
Melagraphia aethiops	Live	Medium level
Micrelenchus caelatus elongatus		Shell sand; low tide
Micrelenchus dilatatus	Live	Under stones; low tide; in shell sand
Micrelenchus sanguineus	Live	Under stones; low tide; in shell sand

Micrelenchus tenebrosus Live Under stones; low tide; in shell sand
Thoristella chathamensis cookiana Out of shell sand; low tide
Calliostoma (Maurea) punculatum Beach collected
Calliostoma (Maurea) tigris tigris Beach collected
Brookula polypleura Among sand with seaweed
Herpetopoma bella Live Under stones; low tide
Cookia sulcata Live Low tide crevices under stone
Turbo smaragdus Live Under stones and rocks
Nerita (Melanerita) atramentosa Live On rocks in crevices; high tide level
Zeacumantus lutulentis Live Out of shell sand; low tide
Maoricolpus roseus roseus Beach collected
Nodilittorina cincta Live Larger; medium to high tide
Nodilittorina antipodum Live Small; medium to high tide
Eatoniella lutea Out of shell sand; low tide
Eatoniella olivacea Out of shell sand; low tide
Pisinna zosterophila Out of shell sand; low tide
Onoba foveauxiana Out of shell sand; low tide
Pusillina (Haurakia) hamiltoni Out of shell sand; low tide
Rissoina chathamensis Live Under stones, low tide
Zegalerus tenuis Live Brought up in tangled net 160m by fisherman August 1994
Trichosirius inornatus Live Under stones; low tide & brought up in tangled net 160m
Tanea zelandica Out of shell sand; low tide
Argobuccinum pustulosum tumidum Live Low tide under ledges; snorkelled in crevices below low tide; brought up in tangled net 160m by fisherman August 1994
Ranella australasia australasia Live Dived at 23m at base of rock on metal
Epitonium (Hyaloscala) jukesianum Live(few) Out of sand under stones and in shell sand; low tide; south of Don's bach
Janthina globosa Te Awaite shell sand; Jan. 1999
Janthina exigua Te Awaite shell sand; Jan. 1999
Fusceulima mangonuica? Shell sand
Xymene traversi In shell sand and under stones; low tide
Haustrum haustorium Live Low tide under rocks
Lepsiella scobina Live Under stones; low tide
Dicathais orbita Live Low tide under rocks
Buccinulum linea linea Live On rock faces and beach collected; not very plentiful
Buccinulum vittatum Live Under stones; low tide
Cominella (Cominella) adspersa Live Beach collected also
Cominella (Cominella) maculosa Live Low and medium tide
Cominella (Eucominia) mirabilis Live
Zemitrella choava Out of shell sand; low tide
Zemitrella sp. Brought up in tangled net 160m by fisherman August 1994
Amalda (Baryspira) australis Beach collected
Amalda (Baryspira) mucronata Beach collected
Volvarinella cairoma Live Under stones; low tide
Austromitra rubiginosa Out of shell sand; low tide
Alcithoe arabica [*swainsoni* form] From crayfisherman out of pots off Te Awaite Stream, 1994
Lucerapex angustatus Brought up in tangled net 160m by fisherman August 1994

Antimelatoma buchanani maorum Brought up in tangled net 160m by August 1994
Tomopleura albula Brought up in tangled net 160m by fisherman August 1994
Neoguraleus amoenus Live Out of shell sand; low tide
Neoguraleus sinclairi Beach collected; high tide line
Philippia lutea Beach collected south of Don's bach
Linopyga rugata rugata Out of shell sand; low tide
Odostomia sp. Brought up in tangled net 160m by fisherman August 1994
Chemnitzia sp. Brought up in tangled net 160m by fisherman August 1994
Eulimella sp. Live Brought up in tangled net 160m by fisherman August 1994
Striacana cryptolira Shell sand
Turbonilla sp. Out of shell sand; high tide line
Gadinia conica Dead White shell; shell sand; low tide
Benhamina obliquata Live On shaded rocks
Siphonaria australis Live From holdfast of washed up kelp and in medium level on rock
Marinula filholi Live Among high on shaded rocks Live

BIVALVIA

Nucinella maoriana Brought up in tangled net 160m by fisherman August 1994
Nucula hartvigiana In shell sand
Nucula sp. Brought up in tangled net 160m by fisherman August 1994
Barbatia novaezealandiae Beach collected
Tucetona laticostata Beach collected
Aulocomya atra maoriana In shell sand
Modiolus areolatus Beach collected
Xenostrobus pulex Live Top of rocks
Tiostrea chilensis Brought up in tangled net 160m by fisherman August 1994
Chlamys gemmulata Brought up in tangled net 160m by fisherman August 1994
Chlamys zealandiae Live Brought up in tangled net 160m by fisherman August 1994
Mesopeplum convexum Live Brought up in tangled net 160m August 1994
Lima zealandica Brought up in tangled net 160m by fisherman August 1994
Gonimyrtea concinna Brought up in tangled net 160m by fisherman August 1994
Borniola reniformis Live Under stones
Myllita (Zemyllita) stowei Live Under stones
Kellia cycladiformis Live Brought up in tangled net 160m by fisherman August 1994
Neolepton antipodum Brought up in tangled net 160m by fisherman August 1994
Cardita aoteana Beach collected Live Brought up in tangled net 160m 1994
Pleuromeris zelandica Brought up in tangled net 160m by fisherman August 1994
Venericardia purpurata Live Brought up in tangled net 160m August 1994
Volupicuna mayi ? Live Brought up in tangled net 160m by fisherman August 1994
Pratulum pulchellum Brought up in tangled net 160m by fisherman August 1994
Pseudarcopagia disculus Live Low tide; under stones
Protothaca crassicosta Live Under stones
Ruditapes largillierti Dead Shell sand
Hiatella arctica Dead Shell sand
Pholadidea tridens Brought up in tangled net 160m by fisherman August 1994

BRACHIOPODA

Terebratella sanguinea Beach collected Te Awaite Bay

DARWIN - THE EASY WAY: REVIEW OF TWO BOOKS WITH CONNECTIONS TO CHARLES DARWIN

By Jill Burnet

Everyone has heard of Charles Darwin's great work on the origin of species, or to give it its full title, "On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life." But who has read it? Not me, at any rate. I fully intended to, and actually got as far as looking at it, and that was as far as I got. A quick glance showed me that the book, like the title, was extremely wordy and pretty heavy going. One day, in the dim and distant future, when I have a lot of time to spare, I might go back to it. In the meantime, I have done the next best thing and read a book about Darwin, "The Origin" by Irving Stone, the well-known author of biographical novels, such as "The Agony and the Ecstasy" and "Lust for Life". "The Origin" is the story of Charles Darwin's life, opening with him at 22 years of age just graduated from Cambridge University, and follows him through the rest of his life. It is a very readable and detailed account, and seems to be well researched as far as I can tell. I certainly found it very interesting, and learnt a lot about Darwin, his family - I hadn't realised he was connected with the Wedgwoods - the difficulties he faced in his work and his achievements. It is a good, solid book, 730 pages in the hardback copy, published by Cassell, which I acquired from the public library at one of their sales of withdrawn books. It has a map of the "Beagle" voyage, and a bibliography of Darwin's works, and books and articles about him, his times and his contemporaries.

Shortly after reading this, I came across "Period Piece, a Cambridge Childhood", by Gwen Raverat, who, I discovered, was a grand daughter of Charles Darwin, This book is an account of a childhood in England at the end of the nineteenth century. Charles Darwin is only mentioned in passing as he died a few years before the author was born, but there is a chapter about Darwin's house, "Downe", and we see Darwin's children as the author's aunts and uncles. This is a charming book, a picture of a way of life that is long gone. It is illustrated with line drawings by the author, has a useful family tree, and is published by Faber and Faber.

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